CLAIMS

1.   A method of providing multiple versions of a digital recording comprising the step of multiplexing a base layer with an enhancement layer, said base layer having base data representing a first version of the digital recording, and said enhancement layer having enhancement data which can be combined with said base data to represent a second version of the digital recording.

2.   The method of claim 1, wherein said multiplexing step comprises the step of interleaving said base layer with said enhancement layer.

3.   The method of claim 2, wherein said interleaving step further comprises the steps of:
        dividing video objects within said base layer into base interleave units;
        dividing video objects within said enhancement layer into enhancement interleave units; and
        storing said base interleave units and said enhancement interleave units in an alternating scheme.

4.   The method of claim 3, wherein a number of said base interleave units is approximately equal to a number of said enhancement interleave units.

5.   The method of claim 3, wherein a playback time correlating to said base interleave units is approximately equal to a playback time correlating to said enhancement interleave units.

6.   The method of claim 3, further comprising the steps of:

       providing a first program chain which links together cells associated with said base interleave units; and

       providing a second program chain which can be merged with said first program chain to form a hybrid program chain, said hybrid program chain linking together cells associated with said base interleave units and cells associated with said enhancement interleave units in an order appropriate for generating said second version of the digital recording.

7.   The method of claim 3, further comprising the steps of:

       providing a first program chain which links together cells associated with said base interleave units to generate a first bitstream;

       providing a second program chain which links together cells associated with said enhancement interleave units to generate a second bitstream; and

       during playback, merging said first and second bitstreams to generate said second version of the digital recording.

8.   The method of claim 1, further comprising the step of coding said base data in a format substantially similar to MPEG-2.

9.   The method of claim 1, further comprising the step of coding said enhancement data in a format substantially H.264.

10.   The method of claim 1, wherein said second version of the digital recording comprises high definition program content.

11.   The method of claim 1, wherein said base layer and said enhancement layer are stored on a single side of said storage medium.

12.   The method of claim 1, wherein said storage medium is a digital video disc (DVD).

13.   The method of claim 1, further comprising the step of adding at least one time stamp to at least one of said base layer and said enhancement layer.

14.   The method of claim 13, wherein said at least one time stamp comprises at least one of a decoder time stamp and a presentation time stamp.

15.   A DVD medium comprising:

a base layer comprising base data representing a first version of a digital recording; and

an enhancement layer comprising enhancement data which can be combined with said base data to represent a second version of said digital recording;

wherein said base layer and said enhancement layer are interleaved.

16.   The DVD medium of claim 15, wherein said video objects within said base layer are divided into base interleave units, said video objects within said enhancement layer are divided into enhancement interleave units, and said base interleave units and said enhancement interleave units are stored on said storage medium in an alternating fashion.

17.   The DVD medium of claim 16, wherein a number of said base interleave units is approximately equal to a number of enhancement interleave units.

18.   The DVD medium of claim 16, wherein a playback time correlating to said base interleave units is approximately equal to a playback time correlating to said enhancement interleave units.

19.   The DVD medium of claim 16, further comprising:

a first program chain which links together cells associated with said base interleave units; and

a second program chain which can be merged with said first program chain to form a hybrid program chain, said hybrid program chain linking together said cells associated with said base interleave units and cells associated with said enhancement interleave units in an order appropriate for generating said second version of said digital recording.

20.   The DVD medium of claim 16, further comprising:

a first program chain which links together cells associated with said base interleave units to generate a first bitstream; and

a second program chain which links together cells associated with said enhancement interleave units to generate a second bitstream;

wherein said first and second bitstreams are merged during playback to generate said second version of said digital recording.

21.   The DVD medium of claim 16, wherein said base data is stored in a format substantially similar to MPEG-2.

22.   The DVD medium of claim 15, wherein said enhancement data is provided in a format substantially similar H.264.

23.   The DVD medium of claim 15, wherein said second version of said digital recording comprises high definition program content.

24.   The DVD medium of claim 15, wherein said base layer and said enhancement layer are stored on a single side of said first storage medium.

25.   The DVD medium of claim 15, wherein said first storage medium is a digital video disc (DVD).

26.   The DVD medium of claim 15, wherein at least one of said base layer and said enhancement layer comprises at least one time stamp.

27.   The DVD medium of claim 26, wherein said at least one time stamp comprises at least one of a decoder time stamp and a presentation time stamp.